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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ORTIZ, XIOMARA Y

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/07/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,407

Applicant(s)

MARTIN ET AL.

Examiner

Xiomara Y. Ortiz

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 10-21 and 24-28 is/are rejected.
7) ☒ Claim(s) 7-9, 22 and 23 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment and remarks filed on February 23, 2004.

Claims 1-28 are presented for further examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3, 4, 5, 6, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosbab U.S Patent No. 5917808 in view of McKee U.S. Patent No. 5712981.

Regarding claim 1, 16, and 26, Kosbab discloses receiving data representing communications on the network, the data containing source device, destination device, data transfer protocol, and data volume information for communication presented therein; (Kosbab col.4 lines 45-56 for receiving network traffic in the form of frames between the nodes of the LAN (Ethernet). It is well known that frames contain the source and destination address, the type of data (protocol), and data with a maximum of 1500 bytes); identifying, from the received data, data relating to one or more relevant server protocols (col.8 lines 16-30 where the frames are

related to one or more server protocols as TCP/IP DSN, IPX SAP, NetBios, etc.). But Kosbab fails to disclose using the identified data to determine as a server, the device, which has the highest data volume for communications, in which it is the source, or destination device and in which at least a threshold number of other devices are involved.

However, McKee teaches identifying the candidate local server with the highest linkage which is measured in terms of the number of frames involved in the traffic with the associated nodes, number of associates nodes (that is, a plurality of nodes which means more than one, being this a threshold), and the number of bytes involved in the traffic with the associated nodes (McKee col.1 lines 66-67 to col.2 lines 1-24), where the program for extracting servers 10 analyses traffic data presented in traffic elements 22 to produce a global server list 23 and a local servers list 24 (McKee col.6 lines 40-50), and examines the traffic data represented by the traffic elements and creates a list of all the traffic nodes that is nodes transmitting or receiving traffic (source or destination) (McKee col.7 lines 65-65 to col.8 lines 1-9).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Kosbab and combining it with the invention disclosed by McKee.

One of ordinary skill in the art would have been motivated to do this combination in order to upon local servers being identified, make a suggestion as to whether any of these local servers should be moved to another logical segment and as to be worthwhile splitting a segment between two associated local segments (McKee abstract), to provide a network analysis method that facilitates an appreciation of operation of the network at a sub-network level (McKee col.1

lines 31-33), and for once the local server being identified, further analysis can be effected to determine how network performance can be improved (McKee col.2 lines 41-43).

Regarding claim 2 and 17, the above combination discloses all the limitations in claim 1 and 16, and also includes that for each communication included in the received data, comparing the data transfer protocol with the at least one predefined server protocol, and when the comparison results in a match, identifying the corresponding received data as relating to a relevant server protocol (Kosbab col.8 lines 16-41 comparing the frame information (which contains the protocol) to server frame types (like TCP/IP DSN, IPX SAP, NetBios which are server protocols) and if there is a match between the frame information and any of the server frame type, identify entry as a server).

Regarding claim 3 and 18, the combination discloses all the limitations in claim 2 and 16, and also teaches, identifying further includes marking the identified data that (Kosbab col.8 lines 36-41 for after comparing the frame information with the server frame type, and having a match, the corresponding entry is tagged as a server).

Regarding claim 4 and 19, the combination discloses all the limitations in claim 1 and 16, and also discloses identifying the devices involved in the communications represented in the identified data using the source device or destination device information and for each identified device (McKee col.7 lines 6-22 for identifying global and local servers depending on the depth of the detail provided by the traffic data. The traffic data can be simply based on source and destination node address (source and destination device information) of message packets passed across the network), and for each identified device, determining the total volume of data transferred during communications represented in the identified data involving the device using

the volume information (McKee col.8 lines 15-25 for measure the traffic volume in terms of packets, frames, or bytes exchanged with each logical segment provided the total traffic field of each traffic element 22 records the appropriate information).

Regarding claim 5 and 20, the combination discloses all the limitations in claim 4 and 19, but neither Kosbab nor McKee teaches identifying the device with the highest total volume. However, McKee teaches that identifying local server by examining the traffic data in where a server is a node with the highest linkage thereto (McKee col.1 lines 66-67 to col.2 lines 24), where the linkage of a node is measured in terms of number of associated nodes, number of frames involved in the traffic or number of bytes involved in the traffic with the associated nodes. Therefore in order to identify a server it has to identify the node with the highest number of nodes, highest number of frames or bytes.

Regarding claim 6 and 21, the combination discloses all the limitations in claim 5 and 20, and also discloses determining the number of other devices involved in communications, represented in the identified data, with the identified device (Kosbab col.2 lines 21-23 for determining the number and types of devices that are present in the LAN).

Regarding claim 10, the combination discloses all the limitations in claim 1, and also discloses that the received data comprises network traffic data (Kosbab col.4 lines 46-47 for receiving network traffic in form of frames).

Regarding claim 11, the combination disclose all the limitations in claim 10, and also discloses collecting said network traffic data at a location on the network using a traffic monitor (Kosbab col.1 lines 6-9 for method for a LAN using a test instrument and a method for

identifying the types of devices present on a local area network by passively monitoring network traffic).

Regarding claim 12, the combination discloses all the limitations in claim 11, and also discloses data being collected over a predetermined time period (Kosbab col. 7 lines 13-16 for frames being collected over a period of time desired by the user of the test instrument 10).

Regarding claim 14, the combination discloses all the limitations in claim 1, but neither Kosbab nor McKee teaches a threshold number being an integer greater than one. However, McKee teaches that identifying local server by examining the traffic data in where a server is a node with the highest linkage thereto (McKee col.1 lines 66-67 to col.2 lines 24), where the linkage of a node is measured in terms of number of associated nodes, meaning a plurality of nodes, thus implying more than one.

Regarding claim 15, the combination discloses, all the limitations in claim 1 and also disclose relevant server protocols as TCP/IP DNS, IPX SAP, IPX, and Net BIOS (Kosbab col.8 lines 20-32).

4. Claims 13, 24, 25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosbab U.S Patent No. 5917808 in view of McKee U.S Patent No. 5712981 in further view of Diebboll U.S. Patent No. 5886643.

Regarding claim 13 and 25, Kosbab in view of McKee discloses all the limitation in claim 11 and 24, but fails to disclose that the network traffic data is RMON2 data. However Dieboll teaches using RMON II as a standard for collecting data (Dieboll col.4 lines 34-48).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Kosbab in view of McKee and combining it with the invention disclosed by Dieboll.

One of ordinary skill in the art would have been motivated to do this combination in order to collect data in accordance with a known standard as RMON II which was promulgated by the Internet Engineering task force, which specifies as a protocol for communicating with the probe and specifies the format of the Management Information Base (MIB), which defines the kinds of data that is stored and how to collect and retrieve that data (Dieboll col.4 lines 34-52).

Regarding claim 24 and claim 27, Kosbab in view of McKee discloses all the limitations in claim 16 and claim 26, and also discloses program means for retrieving network traffic data from the network device at a location on the network, and program means for storing the data in a data table in the form of source, destination, application and volume. Kosbab teaches a frame processor implemented in hardware, software or a combination thereof within the test instrument 10 where the test instrument is coupled to the LAN 12 to receive network traffic in form of frames (Kosbab col.4 lines 45-56). Kosbab also teaches storing the accumulated information in a station database 104 (Kosbab col.4 lines 57-60) and a representation of the station database 104 in form of a table (Kosbab col.5 lines 1-8 and fig. 4) containing the field of the IP and Mac address of the device sending the frames (source) and the frame count, which is the number of frames that has being received (volume) (Kosbab col.5 lines 9-20). But the combination fails to disclose the destination and the application data in the table. However, Dieboll teaches a database to store data retrieved from the probes (Dieboll col.6 lines 19-29) in form of a table (Dieboll fi.2) which contains a destination field 76 which identifies the intended recipient of the

packet data (Dieboll col.6 lines 30-51 and fig.2), and a protocol field 84 which identifies the protocol (application) used for the monitored communication between the two nodes (Dieboll col.6 lines 52-56 and fig.2). “A network manager can ask the system to identify all of the servers that a particular node is talking to (destination); to identify all of the traffic between two identified nodes; to identify the protocols (application) that are being used over a particular line; etc.”, (Diebboll col.5 lines 25-29).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Kosbab in view of McKee and combining it with the invention disclosed by Diebboll.

One of ordinary skill in the art would have been motivated to do this combination in order store in the database the best information about the traffic between two identified nodes, (Diebboll col. 6 lines 18-29) and to create a way to discover what is the network topology and using that information to help in generating reports about the network, (Dieboll col.1 lines 58-60 and col.1 lines 63-67).

Regarding claim 28, the above combination discloses all the limitation in claim 27, and also discloses wherein the data storage comprises a database (Kosbab discloses a data storage, as a memory, that comprises a database fig.3).

Allowable Subject Matter

Claims 7, 8, 9, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed February 23, 2004 have been fully considered but they are not persuasive.

As the applicants' arguments filed on February 23, 2004, the applicant argue in substance:

a) that none of the prior art documents identify data relating to relevant server protocols, and from that data, determining a device as a server, if it has the highest data volume and if at least a threshold number of other devices are involved.

In response to arguments, Kosbab teaches comparing or matching frame information to server frame type (identify), from the received data, data relating to one or more relevant server protocols. The examiner recognizes that Kosbab does not teach to identify as a server, the device that has the highest data volume for communications and that at least a threshold number of other devices are involved. However McKee teaches identifying the candidate local server with the highest linkage which is measured in terms of the number of frames involved in the traffic with the associated nodes, number of associates nodes (that is, a plurality of nodes which means more than one, being this a threshold), and the number of bytes involved in the traffic with the associated nodes.

b) that there is no motivation to combine the teaching of Kosbab with either Dieboll or McKee.

In response to argument, the motivation to combine Kosbab with McKee is in order to upon local servers being identified, make a suggestion as to whether any of these local servers

should be moved to another logical segment and as to be worthwhile splitting a segment between two associated local segments, to provide a network analysis method that facilitates an appreciation of operation of the network at a sub-network level, and for once the local server being identified, further analysis can be effected to determine how network performance can be improved. The motivation to combine Kosbab in view of McKee with the Dieboll is to collect data in accordance with a known standard as RMON II which was promulgated by the Internet Engineering task force, which specifies as a protocol for communicating with the probe and specifies the format of the Management Information Base (MIB), which defines the kinds of data that is stored and how to collect and retrieve that data, to store in the database the best information about the traffic between two identified nodes, to create a way to discover what is the network topology, and using that information to help in generating reports about the network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiomara Y. Ortiz whose telephone number is (703) 305-6783. The examiner can normally be reached on Monday-Thursday from 8:30AM to 5:30PM. The examiner can also be reached on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Xiomara Y. Ortiz
Patent Examiner
Art Unit 2141


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER